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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/511,238

09/19/2005

Nae Hyuck Chang

51876P723

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04/23/2007

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EXAMINER

SIM, YONG H

ART UNIT

PAPER NUMBER

2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/511,238

Applicant(s)

CHANG ET AL.

Examiner

Yong Sim

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/07/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 objected to because of the following informalities: Claim 1 recites “generating on adjusted backlight.” Please change to “generating adjusted backlight” to be idiomatically correct. Appropriate correction is required.
2. Claim 1 objected to because of the following informalities: Claim 1 recites “a1)” Please change to “a)” to be consistent with the previous claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Cui (US 2003/0001815A1).

Re claim 1, Cui teaches an apparatus for controlling a backlight (220 “backlight” Fig. 2) of a liquid crystal display (LCD) [Para 0015; “LCD or flat panel”] and processing visual signals, comprising: a generation means for generating on adjusted backlight

intensity information to reduce the power consumption of an end user terminal having the LCD; and an adaptation means for adapting brightness and/or contrast of the visual signal based on the backlight intensity information and displaying the adapted visual signal on the LCD [Para 0021; "In order to maintain a pre-determined display image quality, a display image brightness may then be detected and adjusted in response to adjusting the flat-panel display monitor backlight brightness/backlight intensity. The software/(adaptation means) program may adjust/adapt the display image brightness/visual signal, while the power consumption target (target maybe reduction) is achieved or maintained."].

Re claim 2, Cui teaches the apparatus as recited in claim 1, wherein if the backlight intensity information indicates that the backlight is adjusted from the original luminance value Y to a value Y' , the adaptation means adapts the original pixel value of the visual signal proper for the original luminance value Y to a pixel value proper for the adjusted luminance value Y' [Para 0021; "In order to maintain a pre-determined display image quality/{original luminance) a display image brightness may be detected and adjusted/(adapting proper visual signal for original luminance) in response to adjusting (Changing Y to Y') the flat-panel display monitor backlight brightness." When the backlight brightness is adjusted, the luminance value would change from Y to Y' .]

Re claim 3, Cui teaches the apparatus as recited in claim 1, wherein the adaptation means is included in a system that provides the visual signal to the end user

terminal [The program/adaptation means as described above is embodied in a mobile computing system and the end user is the viewer viewing the Flat-Panel display device 125 in Fig. 1. Also refer to Para 0023].

Re claim 4. Cui teaches the apparatus as recited in claim 1, wherein the generation means for generating adjusted backlight intensity information controls the backlight intensity dynamically according to information on the visual signal displayed on the LCD [Para 37; "the graphics gamma unit to adjust the display image brightness or enable the PWM to adjust the display backlight brightness in order to maintain a pre-determined display image quality."].

Re claim 5, Cui teaches a method for controlling a backlight (220 "backlight" Fig. 2) of an LCD [Para 0015; "LCD or flat panel"] and processing (105 "processor" Fig. 1) visual signals, comprising the steps of: a) generating adjusted LCD backlight intensity information [Para 0021; "image brightness is detected in response to adjusting backlight brightness." Backlight information must be generated in order to be detected for image adjustment.] to reduce the power consumption of an end user terminal having the LCD [Para 0020; "a flat-panel display/LCD backlight can be reduced to reduce power consumed by a display device."; and b) adapting brightness and/or contrast of the visual signal based on the backlight intensity information and displaying the adapted visual signal on the LCD [Para 0021; "In order to maintain a pre-determined display image quality, a display image brightness may then be detected and adjusted in response to

adjusting the flat-panel display monitor backlight brightness/backlight intensity. The software/(adaptation means) program may adjust/adapt the display image brightness/visual signal, while the power consumption target (target maybe reduction) is achieved or maintained."].

Re claim 6, Cui teaches the method as recited in claim 5, wherein if the adjusted backlight intensity information indicates that the backlight is adjusted from the original luminance value Y to a value Y', the original pixel value of the visual signal proper for the original luminance value Y is adapted to a pixel value proper for the adjusted luminance value Y' in the step b) [Para 0021; "In order to maintain a pre-determined display image quality/(original luminance) a display image brightness may be detected and adjusted/(adapting proper visual signal for original luminance) in response to adjusting (Changing Y to Y') the flat-panel display monitor backlight brightness." When the backlight brightness is adjusted, the luminance value would change from Y to Y'.].

Re claim 7, Cui teaches the apparatus as recited in claim 5, wherein the step b) is performed in a system that provides the visual signal to the end user terminal [The program/adaptation means as described above is performed and embodied in a mobile computing system and the end user is the viewer viewing the Flat-Panel display device 125 in Fig. 1. Also refer to Para 0023].

Re claim 8, Cui teaches the apparatus as recited in claim 5, wherein the step a) includes the step of : a1) adjusting the backlight intensity dynamically according to information on the visual signal displayed on the LCD [Para 37; "the graphics gamma unit to adjust the display image brightness or enable the PWM to adjust the display backlight brightness in order to maintain a pre-determined display image quality.").

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Sim whose telephone number is (571) 270-1189. The examiner can normally be reached on Monday - Friday (Alternate Fridays off) 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YHS
4/13/2007

AMR A. AWAD
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "Amir A. Awad", with a large, sweeping flourish at the end.